The determinants of well-being among Polish economic immigrants. Testing the sustainable happiness model in migrant population

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The Determinants of Well-being among Polish Economic Immigrants. Testing The Sustainable Happiness Model in Migrant Population

1 Introduction

1.1 Economic Migration

We live in a world shaped by human migration. In the last half century international migration has increased worldwide; in 2006, approximately 200 million people lived outside their country of birth, representing 3% of the world population (International Organization for Migration, 2008). Furthermore, the number of migrants is expected to rise to 230 million in the 2050s. Economic migrants who cross borders in search of better economic, social opportunities and improved quality of life, are the world's fastest growing group of migrants (International Organization for Migration, 2008; Office for National Statistics, 2013). Economic migration of Polish migrants to the UK is considered as one of the largest migration movements in contemporary Europe (Burrell, 2004). Polish economic migrants migrated to the UK for reasons such as low pay, the lack of work at home, poor career development and low quality of life (Sim, Barclay & Anderson, 2007).

Most of the scientific literature suggests that migration is one of the most significant stressful life events (Bhugra, 2004). Migrants face multiple stressors such as language barriers, new cultural norms, loss of social, familial and support networks, discrimination and underemployment (Sim, Barclay & Anderson, 2007; Weishaar, 2008).

These challenges can result in psychological distress such as anxiety and depression (Huan, & Spurgeon, 2006; Lindert, von Ehrenstein, Priebe, Mielck & Brahler, 2009; Sharma & Jaswal, 2006). Indeed, the dominant narrative in research conducted among economic

migrants is one of negative mental health. However, this does not consider the alternative account that immigrants might experience relatively high levels of well-being. Previous evidence supports the notion that immigrants can be healthy, resilient and able to respond positively to the potential health hazards of migration (Ali, 2002; Ng, Wilkins, Gendron, & Berthelot, 2005).

1.2 Well-being Definitions

It is now recognised that mental health is not merely the absence of mental illness, but also the presence of high well-being levels (Diener, Lucas & Oishi, 2002; Keyes, 2005). Two traditions of well-being research have been proposed: one that focuses on hedonic well-being and the other on eudaimonic well-being (Ryan & Deci 2001). Hedonic well-being is often used in the literature interchangeably with the term happiness or Subjective Well-being (SWB). It consists of three components: life satisfaction, the presence of positive affect, and the absence of negative affect (Lyubomirsky, 2001). The hedonic definition of well-being, however, has been criticised by eudaimonic or psychological well-being (PWB) theorists who argue that subjective well-being misses vital elements such as meaning, purpose and personal expressiveness (McMahan & Estes, 2011). Eudaimonic theorists emphasize positive psychological functioning and human development (Nave, Sherman & Funder, 2008). Although hedonic and eudaimonic approaches stem from distinctive theoretical conceptions and numerous theoretical papers, the self-report research on well-being has offered little evidence of truly distinct correlates and outcomes (Ryan & Deci, 2001). It is argued in the light of available evidence that hedonic and eudaimonic well-being may truly be only one construct (Nave, Sherman & Funder, 2008). Due to the lack of consensus around a single definition of well-being, well-being is best conceived as a multidimensional phenomenon that includes aspects of both the hedonic and eudaimonic elements (Ryan & Deci, 2001).

1.3 Theoretical Framework of Well-being

Over the past years the integrative theoretical account of well-being - Sustainable Happiness Model (SHM) (Lyubomirsky, Sheldon & Schkade 2005) has attracted the attention of several researchers (Boehm, Lyubomirsky, & Sheldon, 2011; Lyubomirsky, Sheldon, & Schkade, 2005; Sheldon, Abad, Ferguson, Gunz, Houser-Marko, Nichols, & Lyubomirsky, 2010). The Sustainable Happiness Model draws on previous theoretical research such as a set-point theory. This theory posits that the set-point of well-being remains constant across the lifespan, reflecting the person's basic temperament, constitution, and personality trait (Sheldon & Lyubomirsky, 2006). According to Lyubomirsky (2005) this immutable genetically-determined set-points accounts for 50% of our well-being levels. Nevertheless, Lyubomirsky et al., (2005) argue that a set point theory is not a sufficient explanation of well-being. Although well-being is genetically determined, it can also be pursued and increased. They argue that cognitive, behavioural and motivational factors account for the remaining 40% and circumstances i.e. incidental or relatively stable factors of an individual's life account for 10% of well-being.

The theory has many strengths. For instance, it has considered a comprehensive range of predictors of well-being (circumstantial factors, cognitive-behavioural factors, set point). Furthermore, although the SHM was originally proposed as a theory of subjective well-being, the authors argued based on the available evidence that it can be extended to psychological well-being (Sheldon & Lyubomirsky, 2006).

Nevertheless, the theory is not without limitations. The extent to which sets of factors interact with one another is still not clear. This is despite calls for investigations which would assess the interaction of factors in order to better understand well-being (Diener, Suh, Lucas &

Smith, 1999). Furthermore, although there is an increasing evidence supporting the Sustainable Happiness Model among general, clinical and student populations (Nelson & Lyubomirsky, 2012), it is unclear to which extent these findings apply to migrant populations.

1.4 Rationale for the Present Study

It is argued that immigrants' well-being may be shaped by different factors and experiences than well-being of the general population. International migrants constitute a very small part of the world's population; migrants are "exceptional", likely to be different from the general population in a variety of ways (Bartram, 2010). Immigrants have to face drastic changes in a wide range of areas such as socio-economic, culture and language (Shimahara, Holowinsky & Tomlinson-Clarke, 2012), which may have an impact on their well-being.

So far most of the scientific literature on immigrant mental health has focussed on stress, distress and mental illness and less attention has been paid to well-being. In a recently published review only 12 studies investigated the determinants of well-being among economic migrants (Bak-Klimek, Karatzias, Elliott & Maclean, 2014). The studies were limited in scope. They focussed mostly on examining demographic and socio-economic factors such as education, income, marital status and ignored other potentially important factors. For instance, they examined a narrow number of intentional activities (cognitive-behavioural variables) such as coping strategies (Jibeen & Khalid, 2010) or social comparisons (Vohra & Adair, 2000) and did not examine the role of personality traits (e.g. Extraversion, Neuroticism), which according to the literature from general populations account for significant variance of well-being (Steel, Schmidt & Shultz, 2008).

As a consequence, none of the studies examined the three sets of variables simultaneously (circumstantial, cognitive/behavioural and personality) in a single study and the interrelationships between them, although the literature in general population suggests that complex relationships may exist between these factors (Onyishi, Okongwu, & Ugwu, 2012; Soto & Luhmann, 2013).

Finally, most research was not theoretically based and when it was, the theoretical underpinnings were limited. Only two studies used a theoretical framework, none of which was a comprehensive theory of well-being (Gokdemir & Dumludag, 2012; Vohra & Adair, 2000). It is essential that an overarching theory such as a Lyubomirsky's theory (2005) which was based on the studies from the general population is tested in migrant populations. The SHM is an example of the psychological theories that have been developed and tested in W.E.I.R.D. (Western, Educated, Industrialised, Rich and Demographic) populations (Henrich, Heine & Norenzayan, 2010). It is argued that a theory should be relevant to the prediction and explanation of all human behaviours, not just general populations from Western cultures. It is hypothesised that the SHM may not be applicable to economic migrant populations who are likely to migrate from non-Western countries that are poorer and more collectivist (Hofstede, 2001; Martin, Abella, & Kuptsch, 2006).

The present study will address the existing gaps in the literature and will be one of the first to examine a more comprehensive range of the determinants of well-being among economic migrants and to do so using an integrative theory of well-being - the Sustainable Happiness Model. The study focussed on Polish economic migrants living in Scotland (UK), who are Scotland's largest migrant group (Pietka-Nykaza & McGhee, 2014). The study examined a wide range of circumstantial, cognitive, behavioural and personality factors, the choice of which was justified by their relevance to the context of migration. For instance, since

immigration is considered by social scientists and mental health professionals as one of the most stressful life events that a person can undergo (Grillo, 2008), coping strategies were examined in the study. It was also important to measure emotion-focussed coping as previous literature on migrant population did not include this factor as a potential predictor of well-being (Bak-Klimek et al., 2014). Since immigrants commonly compare their lives with others such as family/friends in their home country or they compare their post-migration experiences with pre-migration expectations (Kozlowska, Sallah, & Galasinski, 2008), therefore comparison processes were also examined. In the present study, social support and religion were also investigated since available research indicates that immigrants often feel lonely and isolated (Sim, Barclay & Anderson, 2007) and religion is deeply intertwined with Polish culture (94% of Poles are believers in God) (Boguszewski, 2012). Finally, neuroticism and extroversion were selected as these personality traits are strongly associated with economic migration (Canachea, Hayesb, Mondaka, & Walsc, 2013; Silventoinen, Hammar, Hedlund, Koskenvuo, Rönnemaa, & Kaprio, 2008). There is also evidence to suggest that Polish people may score higher on neuroticism than people from other countries (e.g. Italy, United States, Sweden) (Wierzbicka, 1994). Polish people express negative feelings more readily (e.g. irritation) compared with other cultures and in Poland there is a cultural script for complaining (Dolisnki, 1997).

2 Research Questions

1. What are the determinants of well-being among Polish economic immigrants in Scotland?
2. To what extent are the findings supported by the Theory of Sustainable Happiness (Lyubomirsky et al., 2005).

3 Methodology

3.1 Design, Participants & Sampling

Ethics approval was sought and received from the Research Ethics and Governance Committee at Edinburgh Napier University.

A cross-sectional self-completed survey study measured three categories of predictors of well-being (circumstantial, cognitive-behavioural and set point - personality) among Polish migrants in Scotland. Polish immigrants are an example of a "hidden" or "hard-to-reach" population (Faugier & Sargeant, 1997). There is an inherent problem in conducting research with hard-to reach populations. For example, there is often no census-based sampling frame or any other reliable source to define and randomly select a sample (Faugier & Sargeant, 1997). There was no readily-available database that the researcher could access to identify, and subsequently contact Polish immigrants. Therefore, two simultaneous sampling strategies were employed, the aim of which was to increase the likelihood of gaining access to a wide range of Polish immigrants. Advertising yielded a total of 15 participants who completed questionnaires online using Survey Monkey software. Information about research was advertised in Polish information centres, shops, pubs, churches and on websites designed for

Polish immigrants living in Scotland. Regarding snowball sampling, 214 pen-and-paper questionnaires were distributed in hospitality, housekeeping, caring and sales sectors where Polish immigrants are likely to be employed. Also, teachers running English language classes were approached to help identify any Polish immigrants enrolled in the courses. Out of 214 questionnaires, 128 were completed achieving 59.8% response rate. In addition to traditional snowball sampling we implemented snowball sampling using Facebook and this sampling technique yielded a total of 45 questionnaires. Overall, the two recruitment approaches yielded a total of 188 participants aged 18-65. All participants reported to have migrated for economic reasons.

Since both online and pen-and-pencil data were collected, the mode of questionnaire administration might have had an effect on data as demonstrated in the literature review (Bowling, 2005). To test if the data were significantly different from each other, independent t-tests and Anovas were carried out to compare continuous (i.e. well-being, personality) and categorical (i.e. income and education) variables, respectively. The tests did not detect any significant differences between data on any of the measures.

3.2 Measures and Variables

All the measures used in the study are standardized and were previously translated and validated by the Polish Psychological Society.

3.2.1 Outcome Variable

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) was used to measure well-being (Tennant, Hiller, Fishwick & Platt, 2007). The scale consists of 14 items covering both hedonic and eudaimonic aspects, however, the measure does not include separate sub-scales

to assess these two concepts.

Each item is measured on a 5-point Likert scale (none of time, rarely, some of time, often, all of time) where 1 = none of time and 5= all of time. In previous studies conducted in the UK, China or Pakistan, confirmatory factor analysis supported the single factor (Taggart et al., 2013). In our data, factor analysis also showed a single factor solution with loadings ranging from 0.59 to 0.79 for all 14 items. Initial evaluation showed good content validity and reliability; test-retest reliability was high (0.83) (Stewart-Brown et al., 2011). In the present sample an alpha coefficient of 0.9 was reported for the entire scale.

This particular measure of well-being is in line with the definition of well-being: that well-being is best conceived as a multidimensional phenomenon that includes aspects of both the hedonic and eudaimonic well-being (Ryan & Deci, 2001). It also seems appropriate to use this well-being measure in the study testing the Sustainable Happiness Model. Previous studies used both psychological and subjective measures of well-being when testing this theory in general populations (Sheldon & Lyubomirsky, 2006).

3.2.2 Predictors

Circumstantial Factors: Socio-Demographics & Migration-related Variables

Questions about Education, Employment status, Income, Marital status, Reason for migration, Duration of migration and English Language proficiency have been derived from The Lothian Health & Lifestyle Survey (NHS Lothian, 2013) which was administered among Polish immigrants in 2010. All the variables were categorical except for 'duration of migration' which was continuous.

Cognitive and Behavioural Factors

Social Support

Three subscales of The Berlin Social Support Scales (BSSS) were used to measure perceived support, need for support and support seeking (Schulz & Schwarzer, 2003). The BSSS requires participants to rate their level of agreement with a given statement using a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). Internal consistency for subscales has been reported for perceived social support (0.83), need for support (0.63) and support seeking (0.81) (Schulz & Schwarzer, 2003). In the present sample, an alpha coefficient of 0.93 was reported for perceived social support, 0.72 for need for support subscale and 0.67 for support seeking subscale. Validity has been demonstrated in several studies (Schulz & Schwarzer, 2003). It was also reported that a Polish version of BSSS is a reliable measure of social support dimensions (Luszczynska, Kowalska, Mazurkiewicz & Schwarzer, 2006).

Coping Strategies

The 28-item Brief Cope scale (Carver, 1997) aimed to measure different strategies (problem-focused, emotion-focused, dysfunctional coping skills) used by study participants to cope with migration-related stresses. Response choices are on a scale ranging from 1 ('I haven't been doing this at all') to 4 ('I have been doing this a lot'). Individual items are grouped into 14 subscales ranging in score from 0 to 6 (0-3 per item contributing to each subscale). The Brief COPE scale has good internal consistency and test-retest reliability, with established concurrent validity (Carver, 1997). The three composite subscales measuring emotion-focussed, problem-focussed and dysfunctional coping have proved useful in clinical research and have content validity (Cooper, Katona & Livingston, 2008). This tool yielded satisfactory psychometric properties in a previous study with Polish population (Juczyński & Ogińska-

Bulik, 2009). In the present study the internal consistency of the dysfunctional, problem-focussed and emotion-focussed coping subscales were found to be 0.73, 0.69, and 0.70, respectively.

Type of Social Comparisons

Social comparisons were measured by the revised Michalos' (1991) scale. Participants were asked to rate the discrepancies/gaps between 1) their standard of living in Scotland and 2) the standard of living of relevant others (self-other) – friends and family in Poland, British residents of the UK, ethnic minorities in the UK). This tool yielded satisfactory psychometric properties in a study in a Polish population (Kowalik & Janecka, 1998). In the current sample a Cronbach alpha coefficient of 0.71 was reported.

Spirituality and Religiousness

The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) was used to measure religiousness/spirituality (Kalamazoo & John, 1999). Participants were asked to indicate the extent to which they considered themselves "spiritual" or "religious" by selecting a response along a 4-point Likert type scale. They also indicated the frequency of attendance at religious services. This instrument showed evidence of reliability and validity when psychometrically evaluated in the 1998 General Social Survey (Idler et al., 2003). In the current sample a Cronbach alpha coefficient of 0.77 was reported.

Set point - personality

It was argued that a set point is best estimated by the person's average well-being score over many years (Lykken, 1999). Nevertheless, Sheldon and Lyubomirsky, (2006) have encouraged researchers to measure the set-point by using existing personality measures

believing that personality measures may tap the set point relatively directly (Sheldon & Lyubomirsky, 2006). In the present cross-sectional study, the set-point was measured using personality traits measure: the 48-item short form EPQR (EPQR-S) (Eysenck, Eysenck, & Barrett, 1985). For the purpose of this study, only Extraversion and Neuroticism indices were measured. The choice of these personality indices was determined by the available evidence on personality traits. The personality traits of extroversion and neuroticism have been consistently reported as the most significant predictors of well-being in the general population (Lucas, 2008). Furthermore, the set point percentage (50%) from the Sustainable Happiness Model was based on the scientific evidence from studies which focussed on these personality traits (Steel, Schmidt & Shultz, 2008).

Each question on the EPQR scale has a binary response: 'yes' or 'no'. Each dichotomous item is scored 0 or 1 and each scale has a maximum possible score of 12 and minimum of 0. The scale has good internal consistency, test-retest reliability, and concurrent validity. The EPQR-S has now been used quite widely, including studies by Aleixo and Norris (2000) and Blagrove and Akehurst (2001). In the current sample, the internal consistency of the extraversion and neuroticism subscales were found to be 0.85, and 0.84 respectively.

Potential Confounding Variable: Mental Distress

Mental distress was considered as a potential confounding variable since it is known that anxiety and depressive symptoms may contribute to low level of well-being (Mankiewicz, Gresswell & Turner, 2013). Mental distress was assessed by the Hospital Anxiety and Depression Scale (The HADS) which is a scale for detecting symptoms of anxiety and depression in non-psychiatric patients (Zigmond, & Snaith, 1983). It contains two seven-item scales: one for anxiety and one for depression, with a score ranging from 0-21. Each item has

a choice of four fixed response statements (weighted 0-3). A score of 8-10 points indicates borderline significance for either scale, but less than 8 points is insignificant. The validity of the HADS to detect mood disorders has been well documented as has the reliability of the questionnaire for Polish adults (Wichowicz & Wieczorek, 2011). In the current sample, the internal consistency of the anxiety and depression subscales were found to be 0.81, and 0.84 respectively. Nevertheless, a recently published 10-year review questioned the ability of HADS to differentiate between anxiety and depression, and recommended the use of HADS scores more generally as a measure for mental distress (Cosco et al., 2012). Thus, in the present study this factor was considered as a continuous rather than a categorical variable. The minimum score for psychological distress is 0 and the maximum is 42.

3.3 Data Analysis

SPSS 20 statistical software was used to conduct all planned analyses of the data. Descriptive statistics were used to outline the sample characteristics. Data were checked for normality of residuals and heteroscedasticity and the results demonstrated that the normality assumption was not violated. Data were also checked for multicollinearity using four different methods of assessment: Pearson's correlations, tolerance, Variance Inflation Factor (VIF) and condition numbers. The correlation matrix revealed that there were no correlations higher than 0.70 between predictor variables. According to Tabachnick and Fidell (1996), the independent variables with a bivariate correlation more than 0.70 should not be included in multiple regression analysis. In addition, all tolerance values were above 0.25 and VIF values were less than 4 which indicates no problems with multicollinearity (Walker & Maddan, 2013) (See Appendix 1). In terms of condition numbers, it is argued that when a dimension presents a condition index above 30 and when 2 or more indicators have a high variance proportion on this dimension (>0.50), these indicators present multicollinearity

(Walker & Maddan, 2013). In the present study, three dimensions presented a condition index above 30, however, only one indicator had a high variance proportion (>0.50) on these dimensions (See Appendix 2).

The data were analysed by multiple and hierarchical regression which included well-being as a dependent variable. Multiple regression analyses were conducted to answer research question 1 i.e. identify significant predictors of well-being. Personality, cognitive-behavioural and circumstantial factors were simultaneously entered into a multiple regression model to allow for simultaneous control of confounding variables. Such analysis allowed the researcher to determine the unique contribution of each variable after adjusting for the effects of all the other predictors and identify the strongest predictor of immigrants' well-being. Hierarchical regression analysis was conducted to answer research question 2 i.e. to determine the extent to which three theoretically pre-determined sets of predictors account for variance in well-being in the sample of Polish immigrants and in doing so, assess the extent to which the data support the Sustainable Happiness Model (2005). To test the SHM, the three hierarchical regression analyses were conducted where circumstantial factors, cognitive-behavioural factors and personality traits category were entered into the equation first (Model 1, 2, 3). To address the limitation of the theory and test the unique contribution of each set of variables, three additional regression analyses were carried out with circumstantial, cognitive-behavioural and personality factors being entered into the equation last (Model 4, 5, 6).

4 Results

4.1 Descriptive Statistics

Sample characteristics and the scales results are displayed in Tables 1a-c.

Insert Tables 1a-c about here.

4.2 Statistically Significant Predictors of Well-being of Polish Immigrants

4.2.1 Multivariate Analyses

Before conducting multivariate analyses, we followed the guidelines by Tabachnick and Fidell (2007) on how to obtain a minimum number of cases required for multiple regressions (Number of cases = 104 + number of IVs) [54]. We found that a minimum sample size of 130 was required, given that 26 variables (dummy variables included) would be included in the multivariate analyses. Table 2 displays simultaneous multiple regression analysis.

Insert table 2 about here

Multivariate analyses revealed that circumstantial factors such as perceived health status, age at migration and English language proficiency and cognitive-behavioural factors such as social support, coping strategies, type of comparisons and religiousness were significant predictors of well-being once all the other variables had been controlled for. Better perceived health, a younger age at migration and advanced/proficient level of English predicted higher levels of well-being. A higher level of social support, religiousness/spirituality, a greater use of emotion-focussed coping, problem-focussed coping and a tendency to make downward comparisons significantly predicted higher well-being levels. A greater use of dysfunctional coping predicted lower well-being levels. None of the personality traits emerged as a significant predictor of well-being.

4.2.2 Hierarchical Regression

In the hierarchical regression the blocks of variables (circumstantial factors, cognitive-behavioural factors, personality) were entered in different orders to examine the unique contribution of each set of variables to well-being after taking into account all the other variables. The order of variables in each model was as follows: Model 1 - personality, cognitive-behavioural, circumstantial; Model 2 - circumstantial, cognitive-behavioural, personality; Model 3 – cognitive-behavioural, personality, circumstantial; Model 4 - personality, circumstantial, cognitive-behavioural; Model 5 - circumstantial, personality, cognitive-behavioural; Model 6 – cognitive-behavioural, circumstantial, personality.

When personality variables were entered into the regression model first, they accounted for 35.3% of variance in well-being (Table 3, Model 1). When circumstantial factors were entered into the model first they accounted for 37% of variance in well-being (Table 3, Model 2). When cognitive-behavioural factors were entered first, they accounted for 64% of the variance in well-being (Table 3, Model 3). Once the other factors were taken into account, a unique contribution of personality to well-being was 3% (Table 4, Model 6), a contribution of cognitive-behavioural factors was 21% (Table 3, Model 5) and a contribution of circumstantial factors was 9% (Table 3, Model 3)

Insert table 3 about here.

5 Discussion

The study yielded findings that have not been reported in existing theoretical and empirical literature on the determinants of well-being among migrant and general populations. First, we found that a higher emotion-focussed coping predicted higher well-being levels. Previous

studies on migrant well-being have not examined reactive coping strategies as potential predictors of well-being (Bak-Klimek et al 2014). The finding also contradicts the studies from general populations demonstrating a negative relationship between emotion-focussed coping and well-being (Carr, 2011; Mayordomo-Rodríguez, Meléndez-Moral, Viguer-Segui, & Sales-Galán, 2014).

This finding can be explained in a few ways. The present sample included many immigrants facing adverse circumstances, such as poor perceived health, language barriers and low income. It is likely that migrants perceived these circumstances as difficult to change or control. Emotion-focussed coping can be helpful for dealing with intransigent or unchangeable stressors (Cameron & Jago, 2008; DeGraff, & Schaffer, 2008). Furthermore, this type of coping helps a person deal with the feeling of loss (Lazarus, 1981). Migration involves the loss of the familiar, including language, attitudes, values, social structures and the loss of one's social structure and culture can cause a grief reaction (Bhugra & Becker, 2005). Finally, it is also likely that such findings could be explained by the cultural background of immigrants. Emotion-focussed coping is a passive approach and considered suitable within collectivist cultures (Diener & Lucas, 1999). Poland is more collectivist than Western countries such as the UK or the USA (Hofstede, 2001).

Second, we found that an older age at migration, poor health status and language proficiency make a unique contribution over and above socio-economic factors. Previous studies on the determinants of well-being among migrants often failed to include all the three variables and when examined individually, these factors did not significantly predict immigrants' well-being (Bak-Klimek, et al., 2014). Thus, although economic migration aims to improve socio-economic situation of migrants, one should look beyond socio-economic factors such as income and education.

Finally, from the conceptual point of view, this is the first study to test an integrative theory of well-being - the Sustainable Happiness Model (SHM; 2005) among economic migrants. This was achieved by examining the three sets of variables simultaneously (circumstantial, cognitive/behavioural and personality) in a single study which helped determine a unique contribution of each set of variables. Such findings demonstrate that personality has the smallest and cognitive-behavioural factors have the largest direct and indirect contribution to well-being. Overall, such findings do not support Lyubomirsky's statement that the effect of circumstantial changes on well-being will never be greater than the effect of one's set point (personality) (Lyubomirsky, 2010). Neither do the findings support conclusions drawn in the literature on well-being in general populations that personality traits are the best predictors of well-being, more important than life circumstances (Diener, & Lucas, 1999; Libran, 2006). There may be a few explanations for such findings.

Low contribution of personality traits to well-being may be explained by their indirect effect on well-being. It is argued in the literature that genes appear to influence happiness indirectly, by influencing the kinds of experiences and environments one has or seeks to have (Lyubomirsky et al., 2005). In the present study, personality factors shared most variance with cognitive-behavioural factors, thus, they might have had an impact on their intentional activities such as support seeking. Extraversion predicted more support seeking in the previous research (Connor-Smith & Flachsbart, 2007). Furthermore, personality might have had an impact on immigrants' decision to migrate. According to the theory of self-selection economic migrants tend to be favourably ''self-selected'' for labour-market success (Chiswick, 2000). Indeed in our sample, immigrants scored high on extraversion, significantly higher than general population and previous literature suggests that personality traits such as extraversion may predict the decision to migrate (Silventoinen, et al., 2008).

Nevertheless, such findings may also be interpreted in the light of the available theoretical and empirical literature on culture and migration. First, it is argued that the SHM, that was based on studies conducted on the western, individualistic populations, may not be applicable to non-western populations that may be less individualistic and more collectivist such as Poland (Hofstede, 2001).

Different values (i.e. independence vs. interdependence) are shared in individualistic and collectivist cultures (Triandis & Suh, 2002). In collectivist societies, people's behaviour is largely regulated by group norms rather than personal attitudes; collectivists are concerned with changing and improving themselves in order to meet the demands of the environment (Barret et al., 2004; Triandis & Suh, 2002). In individualistic societies, the priority is given to personal goals over those of the group and behaviour tends to be based on personal attitudes rather than group norms (Green et al, 2005; Triandis, 2001). Such differences in values are likely to have varying effects on individualists' and collectivists' way of thinking, behaving and personality traits, which are components of the Lyubomirsky's model. The extensive review of the literature provides evidence that individualists and collectivists differ in terms of their cognitions, the motivation for their behaviour, patterns of social behaviour and communication styles (Triandis & Suh, 2002). For instance, collectivist societies are likely to be more attuned to social comparisons in general, because they tend to strongly value their social standing within a group (Adams, 2005; White & Lehman, 2005). For the individuals with collectivist values, it is important to give and receive emotional support (Aycicegi-Dinn & Caldwell-Harris, 2011) and to feel a sense of "belonging" within a social group (Oyserman, Coon & Kemmelmeier, 2002). Collectivism is also associated positively with religiousness across different cultures (Cukur, de Guzman & Carlo, 2004). There is also evidence suggesting that Western ideas about personality shared in more individualistic

cultures such as the USA may not be applicable to other more collectivist cultures (Benet-Martínez & Oishi, 2008). Collectivist societies rely on personality traits to a lesser degree when understanding themselves and others, compared with those from individualistic cultures (Heine & Buchtel, 2009) which is in line with the Church's (2000) Model of Culture and Personality. Collectivists, as opposed to individualists tend to see their own personality as changeable (Triandis & Suh, 2002) rather than as a fixed set point. Since people in collectivist cultures see themselves as interdependent with their in-groups, this provides for them a stable social environment to which they must adjust, so their personality is flexible, and their personality traits are not so clear (Triandis, 2001). This means that the SHM, based on personality and genetic research in Western cultures, positing that set point is fixed and explains most variance in well-being, may not be applicable to other, less individualistic cultures.

One should bear in mind, however, that although cultural difference may explain why the SHM may not be applicable to more collectivist populations such as Poland, it may not be appropriate to attribute the contradictions of the current data with SHM based on culture alone. To verify this explanation, the model should be tested in other populations of different levels of collectivism including China's population which is considered more collectivist than most other populations on earth (Bond & Hwang, 2008).

The findings, however, may also be interpreted in the light of the differences existing between migrant and non-migrant (general) populations. It is argued that the SHM based on non-migrant population, in its current form may not be applicable to economic migrant populations. International migrants constitute a very small part of the world's population; migrants are "exceptional", likely to be different from the general population in a variety of ways (Bartram, 2010). Based on the existing theoretical and empirical literature on migration

stressors and coping, it is evident that migrants may experience different circumstances and exhibit different personality traits, patterns of thinking and behaving as compared to non-migrant populations. According to Berry's (1997) acculturation strategies framework, immigrants are likely to experience significant changes in language, behaviours, cognitions, personality, identity and attitudes. Furthermore, Berry (1997) argues that immigrants are regularly confronted with migration-related stresses that demand and evoke migrants' coping responses. This supports Lazarus and Folkman's (1984) seminal work that the experience of stress and coping becomes most salient when individuals are faced with major life changes. For instance, migrants are likely to face language and cultural barriers and such migration-related stresses may provoke migrants to a more frequent use of social support, religiousness and downward comparisons (Helset, Lauvli & Sandlie, 2005; Karisto, 2005; Schwarzer, Jerusalem & Hahn, 1994). Indeed, immigrants are more likely to be involved in comparison processes than non-migrant population as they experience life 'before and after migration' (Benson & O'Reilly, 2009). Immigrants may also put a lot of effort and energy to rebuild their social networks as they tend to have a loss of significant ties when they leave their countries (Schwarzer, Jerusalem, & Hahn, 1994). Finally, there is likely to be a difference in personality traits between migrant and non-migrant populations. It is evident that personality traits of migrants may acculturate; migrants are regularly exposed to more than one setting (the origin and the destination), each with different social, cultural, and economic patterns which are likely to shape personality throughout the life span (Güngör, et al., 2013). Thus, personality traits of migrant populations are less likely to be referred to as 'innate and stable characteristics'. This indicates that the SHM which defines a set-point as 'innate and stable characteristics' (Lyubomirsky et al., 2005) may not be applicable to migrant populations.

5.1 Proposal of the revised model of well-being

In the light of present and previous findings on culture and migration, we propose the modified model of well-being which posits that cognitive-behavioural factors have the greatest and personality smallest direct effect on well-being (See Figure 1).

Insert figure 1 about here

The revised model is in line with the present findings which suggest that 1) personality factors and cognitive-behavioural factors are highly interrelated and personality has an indirect impact on well-being through the choice of cognitive-behavioural factors; 2) cognitive-behavioural factors are the strongest predictors of well-being before and after controlling for the remaining factors.

The proposed model is more comprehensive than the original model for a few reasons. First, unlike the SHM, it takes into account the interrelationships between sets of factors and unique (direct) contribution of each set of factors to well-being.

Secondly, as discussed above, the model is in line with the available empirical and theoretical evidence on migration and culture, indicating that there are differences in cognitions, behaviours and personality traits between migrant and non-migrant populations; and between individualists and collectivists. For instance, both migrants and collectivist societies are more likely to be involved in social support, social comparisons and religious practices, which are cognitive-behavioural factors recognised by Lyubomirsky (e.g. Aycicegi-Dinn & Caldwell-Harris, 2011). They also tend to see their own personality as changeable rather than as a fixed set point as suggested in the SHM (Heine & Buchtel, 2009; Triandis, 2001). The model also

supports Berry's (1997) acculturation strategies framework, Lazarus and Folkman's (1984) seminal work on stress and coping and the Church's (2000) Model of Culture and Personality.

Thus, the revised model is considered to be applicable to more collectivist cultures and migrant populations which constitute a significant part of the world. Triandis claimed that about 70 percent of the world population is collectivist and many in these groups disagree with individualism of Western civilizations (Triandis, 1995). We are also living in the world shaped by migration, one in every 33 persons in the world is a migrant (International Organization for Migration, 2013). Furthermore, economic migrants are likely to come from collectivist countries (Bhugra, 2004). The prevalence of migrant and collectivist societies in the world further acknowledges the need for such as model and will encourage future researchers to test it among these populations.

6 Strengths and Weaknesses of the Study

To the best of our knowledge this is the first study that examined a more comprehensive range of the level and determinants of well-being among economic migrants. Unlike the previous studies which did not investigate personality traits the present study included personality traits as potential determinants of well-being. Furthermore, unlike the previous studies which included one or two cognitive-behavioural factors in their analysis, this one examined four types of cognitive-behavioural factors in a single study: social support, coping strategies, religiousness and social comparison. The next important methodological strength of this study over the previous studies is the inclusion of the three sets of variables simultaneously (circumstantial, cognitive/behavioural and personality) in a single study which helped determine a unique contribution of each set of variables. This is also the first study that tested an integrative theory of well-being - the Sustainable Happiness Model in the

migrant populations and found evidence that a theory may not be applicable to this type of population. In addition, given migrants are hard-to reach populations, a use of two simultaneous sampling techniques is considered as a strength of the study. Nevertheless, the study has a few limitations. The main limitation is its cross-sectional design. Immigrants are likely to be more residentially and occupationally mobile than established populations, which is the key obstacle to tracking sample members in longitudinal studies (Black et al., 2003). Nevertheless, given that set-points of happiness are best measured with longitudinal data future researchers should aim to conduct longitudinal studies. The use of a non-random sample is another limitation of the study. Although two sampling strategies were used, the sample cannot be considered as representative to immigrants living in the UK or other countries in the world. Furthermore, it is important to note that our sample is skewed towards females which might also have affected the results. The literature on general population suggests that although some factors that predict wellbeing in men and women are the same (e.g. health status), other factors (e.g. social support) may not be relevant for both (Chanfreau et al., 2008). In addition, although the choice of two personality traits has been justified, one cannot rule out the possibility that if we had included measures of other personality traits, the percentage of variance being explained by the personality would have changed significantly. Future research on migrant populations would benefit from the inclusion of measures of all personality traits and other cognitive-behavioural factors proposed by Lyubomirsky such as gratitude, physical activity or commitment to goals (Lyubomirsky, 2010). Finally, although we attempted to justify the choice of well-being measure, it is important to acknowledge that using the measure that includes hedonic and eudaimonic well-being elements might have affected the findings. Future research should use two separate measures (hedonic and eudaimonic well-being) and examine correlates of both hedonic and eudaimonic well-being. Such analyses could not be conducted in the present study. Although the scale used in the

present study includes both hedonic and eudaimonic facets of well-being, the measure does not include separate sub-scales to assess these two concepts. Furthermore, our attempts to categorise questions would be likely to yield invalid results given that the lines between hedonic and eudaimonic conceptualizations of well-being are very blurred (Proctor, Tweed & Morris, 2015). However, future research investigating correlates of hedonic and eudaimonic well-being in relation to the SHM is important; it would make a contribution to the discussions in the literature about whether hedonic and eudaimonic well-being indeed measure the same construct and to what extent the SHM can be extended to psychological well-being.

7 Implications for Research and Practice

The present study proposed a revised model of well-being. It was argued that the model was more comprehensive and applicable to migrant populations and collectivist societies. However, given the study limitations (i.e. the use of cross-sectional design, a measure of well-being and two personality traits), future research should conduct new studies to confirm or disconfirm the model. The present study encourages future studies to test the modified model of well-being longitudinally across different migrant populations and cultures. It may also be worthwhile to conduct a qualitative study to help explain, elaborate on and expand on the present study results. The qualitative study would help us understand how various factors and experiences affect immigrants' well-being. It would enable us to build a broader picture of how immigrants' well-being is shaped.

The study also conveys an important message to healthcare practitioners, local government and migrants themselves. It indicates that ways of increasing well-being of immigrants are within their reach e.g. through the change of behaviour (e.g. nourishing social support,) and their way of thinking (getting involved in downward social comparisons). The study also

stresses that although changing circumstances may not increase immigrants' well-being to such an extent as intentional activities would, they can still play an important role for their well-being. Improving English proficiency and health status can indeed enhance their well-being. Thus, it highlights the importance to improve access to and use of health care by providing adequate information and sufficient support in interpreting and translating for immigrants with language barriers. It stresses that the government policy should be focused on addressing ethnic inequalities in health and gather evidence on health outcomes, needs and barriers to care of economic migrants.

8 Conclusion

The present study found that circumstantial factors such as perceived health status, age at migration and language proficiency and cognitive-behavioural factors such as emotion-focussed coping predicted well-being over and above personality traits. Overall, the findings did not provide support for the Sustainable Happiness Model (2005) which argues that set point accounts for most variance in well-being and circumstantial factors least variance.

The findings indicate that the SHM that is largely based on studies conducted on non-migrant populations in individualistic societies of developed countries many not be applicable in its current form to collectivist societies and migrant populations. A modified well-being model is proposed which emphasises the importance of cognitive-behavioural factors and circumstances. The study highlights the importance of testing the revised model across populations and cultures using hedonic and eudaimonic measures of well-being.

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